The following review of the invention and prosecution history of the claims will show the background against which the Examiner made his rejection.

The invention relates to accelerants to promote the formation of inorganic oxide films. Applicants' patent[1] claims a composition to include the accelerant in combination with a specific silicon oxide precursor and a tin oxide precursor (Claims 1-27). The reissue application expands the scope of the claims of the patent by substituting metal oxides for tin oxide and enumerates several species of metals in dependent claims that fall within the definition of metal oxides (Claims 28, 29, 31-32). The reissue application also expands the scope of the accelerants. These composition claims, however, retain the silicon oxide precursors of the patent. Some of the claims of the reissue application do not claim the composition, but rather cover oxide films (Claims 35-36, 38, 50, 51-52), or these films on a substrate (Claims 39-49) without specifying a silicon oxide or its precursors, but are broad enough to include them. Others claim a silicon oxide (Claims 37, 56-60). Lastly, applicants added product-by-process claims 65 and 66, directed to an oxide composition produced by the process of oxidizing the composition of any one of claims 1-29 and 31-32.

One of the principal contentions of the Examiner turns on the silicon oxide precursors. During the prosecution of the Russo et al. patent, applicants amended the composition claims to cover a specific class of silicon oxide precursors adapted to deposit a first layer of an oxide and silicon oxide onto glass at a rate of deposition greater than 350Å/sec., whereas the present reissue application includes these limits in only some of the claims (Claims 28, 29, 31, 32, 58, 59, 65 and 66).

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

[1] Russo et al. United States Patent No. 5,401,305.

The recapture doctrine clearly does not apply to any of the claims and especially claims 28, 29, 31, 32, 58, 59 and 65-66 since they all contain the limitation added to claim 1 of the Russo et al. patent regarding the precursor of silicon oxide and the qualification that the composition deposits on a substrate at a rate of deposition greater than 350Å/sec. The amendment to the parent application addressed the precursor of silicon oxide in response to issues the Examiner raised.[2]

As pointed out before, the reissue claims expand the scope of the tin oxide to metal oxides[3] and the scope of the accelerants[4]. The rejection of the claims in the parent application never focused on the tin oxide or the scope of the accelerants. The broadening of the tin oxide to metal oxides and the broadening of the accelerant, therefore, does not recapture any subject matter given up during the prosecution of claims 1-27 of the Russo et al. patent.

The rejection of the remainder of the claims, claims 33-57, and 60 requires

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[2] This discussion will refer to the various applications which form the basis of the present reissue application as the "great grandparent application," Serial No. 07/814,366, filed December 26, 1991 and the "grandparent application" filed the following day, Serial No. 07/814,352 filed December 27, 1991. In order to obtain the benefit of these applications in filing abroad, applicants filed a PCT application within one year, claiming priority of the great grandparent and grandparent applications, and added additional disclosure. This is referred to as the "PCT application" Application No. PCT/US92/10873 filed 21 December 1992, designating the United States for filing the application as a continuation in part. The PCT application formed the basis for the "parent application" Serial No. 08/104,125 filed December 13, 1993. The present reissue application is based on all four of these applications.

[3] The reissue claims generically address metal oxides and, in dependent claims, species of metal oxides such as tin oxide, germanium oxide and the like.

[4] The claims of Russo et al. patent call for organic phosphites, organic borates and water and mixtures thereof and a source of oxygen whereas the reissue claims define the accelerants as phosphites, borates, water, alkyl phosphine, arsine and borane derivatives, nitrogen oxides, nitrogen fluoride and carbon dioxide.

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FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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consideration, not only in view of the parent application, but also the grandparent and great-grandparent applications which support films and articles of manufacture comprising metal oxides and the accelerants broadly, without the recitation of the silicon oxide precursors of the Russo et al. patent. In order to facilitate a review of these claims, applicants direct the Examiner to the claims of the grandparent and great-grandparent applications, Exhibit 1 and Exhibit 2 in their March 29, 1998 Response.

Claim 1 of the great-grandparent application describes the invention as "[a] composition for coating a substrate comprising as least one metal-oxide precursor and at least one deposition rate enhancing material." This clearly supports the reissue claims which do not contain the limitations of the Russo et al. patent directed to the specific classes of accelerants, tin oxide and a specific silicon oxide precursor. Importantly, none of the claims of the great-grandparent or grandparent application contained any limitations relative to coatings that deposit at a rate greater than 350Å/sec., and applicants never amended them, or presented arguments during their prosecution in response to a rejection, but rather continued prosecution of both as a PCT continuation-in-part application which forms the basis for the Russo et al. patent.[5]

However, in rejecting claims 28, 29, 31-60, 65 and 66 under 35 U.S.C. §251, the Examiner argued "the original application . . . [contained] broad claims . . . rejected for the reasons that the disclosure was enabling only for claims to gaseous compositions of a particular class of silicon oxide precursors, tin oxide precursors and certain

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1300 I STREET, N. W.
WASHINGTON, DC 20005
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[5] Applicants point out that they claim the benefit of the great grandparent, grandparent, PCT application and Russo et al. patent in filing the present reissue application. Applicants set out the detailed history of the prosecution of all applications in their March 24, 1998 response in the present application at pages 3-18.

accelerants[. The claims] were allowed, in that only these precursors would achieve the required deposition rate of at least 350 angstroms/sec. that was explicitly taught as defining over the prior art." (October 26 Office Action, page 2, last paragraph).

For the purposes of this rejection, applicants assumed the Examiner intended the parent application[6] which he did not reject on the foregoing basis, but as follows:

> Claims 1-10, 14-23, 25 and 26 are rejected under 35 U.S.C. §112, first paragraph, as the disclosure is enabling only for claims limited [sic] compositions wherein the silicon oxide precursor is limited to that recited in claim 11. . . .
>
> The discussion of the prior art at pages 1-4 of the specification teaches that a number of silicon oxide precursors are not usable for the purpose of the instant invention. One of ordinary skill in the art is given no further direction how to best choose those precursor [sic] that exhibit their required characteristics.

September 20, 1994 Office Action, p. 2, par. 1 and 2, parent application Serial No. 08/104,125. (Emphasis added).[7]

The Examiner also indicated in the parent application he would allow claims 1, 25, 2-10, 14-24 and 26 if rewritten to overcome the rejection under 35 U.S.C. §112, and 2-10, 11-13, 14-24 and 26 if amended to include the limitations of the base claim they depended from and any intervening claims. The Examiner did not cite any prior art to reject the application.

The Examiner did not reject the parent application because only certain

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[6] See footnote 4 for the identification of the various applications addressed in this response.

[7] The balance of the September 20, 1994 rejection in the parent application rejects claims 2-4, 18-24 and 26 under 35 U.S.C. §112, fourth paragraph, as being of improper dependent form for failing to further limit the subject matter of a previous claim, but further indicates allowability of claims 11-13 if written in independent form including the limitations of the base claim and any intervening claims.

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FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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accelerants and tin oxide precursors with a particular class of silicon oxide precursors would give the deposition rate of at least 350 Å/sec. As shown in the above quoted portion of the September 20 Office Action, the Examiner primarily focused on the silicon oxide precursor, as confirmed by his allowance of claim 11. This claim originally depended on claim 1, and specified the silicon oxide precursors and by amendment, applicants combined it with claim 1 thereby narrowing the scope of the silicon oxide precursor originally claimed.

It was clear that the Examiner had no intention to reject the accelerants or tin oxide on the grounds the Examiner now asserts since the written description of the parent application clearly supports the use of a broad class of accelerants and precursors for metal oxides that include tin oxide to obtain these deposition rates (Russo et al. patent, col. 4, lines 18-63). The most compelling reason, however, to show that the Examiner did not reject the accelerant and tin oxide precursor combinations with the specific silicon oxide precursors is the total lack of any indication of this intent in the September 20, 1994 Office Action in the parent application. The Examiner did not mention the accelerant or the tin oxide once in the 35 U.S.C.§ 112 rejection in that Office Action, the only Office Action in the parent application. It would not follow therefore that the Examiner confined the claims of the parent application to specific tin oxide precursors and accelerants when used with specific silicon oxide precursors.

As to the accelerants, applicants point out that the October 25, 1994 Amendment in the parent application which responded to the September 23, 1994 Office Action added other materials to the originally claimed class of accelerants.[8] The Examiner

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FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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[8] The October 25, 1994 Amendment in the parent application changed the triethyl phosphite accelerant to the organic phosphite and organic borate

responded to the broadened definition of the accelerant, the narrowed definition of the silicon oxide precursor and the intact definition of the tin oxide precursor on November 15, 1994 by issuing a Notice of Allowance, a clear indication that in the September 20 Office Action, the Examiner only concluded that the applicants had to redefine the silicon oxide precursor and nothing else. The Examiner having had no objection to accepting a broadened definition of the accelerant in the October 25, 1994 Amendment in the parent application, should likewise have no objection to accepting a broadened definition of the tin oxide precursor and the accelerant in the present application, especially where the written description supports both.

Reissue and Recapture

The Examiner cites In re Clement, 131 F.3d 1464, 45 U.S.P.Q.2d 1161 (Fed. Cir. 1997) and § 1412.02 of the Manual of Patent Examining Procedure to support his position that the applicants have attempted to recapture subject matter given up during the prosecution of the application during prosecution. Applicants point out initially that the essence of the recapture doctrine lies in an attempt by an applicant to reclaim rejected subject matter given up during the prosecution of an application in order to obtain allowance of the application. Case law shows that recapture only relates to subject matter that goes to the issues of patentability advanced by amendment or argument during the course of prosecution of an application in order to overcome a rejection. If an applicant has not urged patentability in either way, recapture does not

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FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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accelerants that now appear in claim 6 of the Russo et al. patent and added claim 27 (claim 25 in Russo et al. patent) specifying the same accelerants in claim 6.

exist.[9]

Clement bars reissue of claims broader than rejected claims cancelled or amended to obtain allowance, but also holds that claims narrowed in all respects does not bar reissue on grounds of recapture. Clement addresses reissue claims broader in some aspects but narrower in others, holding that broadening a claim in an aspect germane to a prior art rejection, even though narrower in another respect constitutes recapture whereas narrowing in an aspect germane to a prior art rejection but broader in an unrelated aspect avoids recapture.[10]

The Examiner also relies on MPEP § 1412.02 to support his argument of recapture, however, applicants point out the MPEP, although having no "binding force . . . [on the Court of Appeals for the Federal Circuit] . . . is entitled to notice so far as it is an official interpretation of statutes or regulations with which it is not in conflict." Litton System, Inc. v. Whirlpool Corp., 728 F.2d 1423, 221 U.S.P.Q. 97 at 107 (Fed. Cir. 1987). Also see New South Industries v. Apache Grounding Corp., 666 Fed. Supp. 1067, 4 U.S.P.Q. 2nd 1890, 1892 ("[T]he MPEP, [is] an internal procedure manual

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[9] Ball Corp. v. United States, 729 F.2d 1429, 221 U.S.P.Q. 289 (Fed. Cir. 1984); In re Wallingham, 282 F.2d, 353, 127 U.S.P.Q. 211, 215 (CCPA 1960); In re Wadlinger et al., 496 F.2d 1200, 181 U.S.P.Q. 826, 830, 832 (CCPA 1974).

[10] Clement specifically states " the relevance of the prior art rejection to the aspects narrowed in the reissue claim. . . [is] an important factor. . . [from which] the following principles flow; (1) if the reissue claim is as broad as or broader than the cancelled or amended claim in all aspects, the recapture rule bars the claim; (2) if it is narrower in all aspects, the recapture rule does not apply, but other rejections are possible; (3) if the reissue claim is broader in some aspects but narrower in others, then: (a) if the reissue claim is as broad as or as broader in an aspect germane to a prior art rejection, but narrower in another aspect completely unrelated to the rejection, the recapture rule bars the claim; (b) if the reissue claim is narrower in an aspect germane to a prior art rejection, and broader in an aspect unrelated to the rejection, the recapture rule does not bar the claim. . . . Clement F3rd at , 45 U.S.P.Q. 2nd at 1165 (emphasis added).

LAW OFFICES
FINNEGAN, HENDERSON, FARABOW, GARRETT, & DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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without the force of law. . . . ") The Manual (MPEP) in this regard notes that the recapture rule prohibits reissue claims that omit or broaden subject matter originally presented or argued in an application to make claims allowable over a rejection or objection. A statement by the Examiner in an Office Action relating to the allowability of a claim containing a certain element that distinguishes over a combination of references, prevents an applicant from subsequently claiming that element in a reissue application, where the applicant originally accepted the Examiner's conclusions without a counter statement or comment as to the Examiner's reasons for allowance.[11]

Applying Clement and MPEP 1412.02 requires comparing the silicon oxide precursor of the reissue claims (28, 29, 31, 58 and 59) with the October 25, 1994 amendment of the silicon oxide precursor in the parent application. These reissue claims contain the same silicon oxide precursor, or species of the precursor as set out in

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[11] The Examiner noted in the October 26, 2000 rejection "If the limitation now being omitted or broadened in the present reissue was originally presented/argued/stated in the original application, the omitted limitation relates to subject matter previously surrendered by applicant, and impermissible recapture exists.

The limitation A omitted in the reissue claims was present in the claims of the original application. The examiner's reasons for allowance in the original application stated that it was that limitation A which distinguished over a potential combination of references X and Y. Applicant did not present on the record a counter statement or comment as to the examiner's reasons for allowance, and permitted the claims to issue. The omitted limitation is thus established as relating to subject matter previously surrendered.

A limitation of the patent claims is omitted in the reissue claims. This omission provides a broadening aspect in the reissue claims, as compared to the claims of the patent. The omitted limitation was originally argued in the original application to make the application claims allowable over a rejection or objection made in the application. Thus, the omitted limitation relates to subject matter previously surrendered, in the original application." (October 26 Office Action, page 3).

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FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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claims 1-27 of the parent application, (now the Russo et al. patent) and accordingly, do not amount to recapture of the class of silicon oxide precursors originally claimed. Applicants amended the silicon oxide precursor in the parent application in order to respond to the September 20, 1994 35 U.S.C. §112 rejections in the parent.[12]

The Examiner, however, did not reject the accelerant under 35 U.S.C. §112, or for that matter under 35 U.S.C. §§102 and 103, but again, allowed the applicants to broaden the scope of the accelerants, indicating he only intended his rejection to apply to the silicon oxide precursors in the parent application. Applicants believe this clear intent of the Examiner should now permit broadening the scope of the accelerant and the tin oxide precursors in the Russo et al. patent to the metal oxide precursors and accelerants now claimed, especially in view of the support in the written description at col. 4, lines 20-63 that describes the metal oxides, metal oxide precursors and accelerants broadly as well as in terms of specific compounds.

These reissue claims fall within the "(3)(b)" exception to recapture as stated in Clement that "if the reissue claim is narrower in an aspect germane to a prior art rejection, and broader in an aspect unrelated to the rejection, the recapture rule does not bar the claim. . . . " Clement, 131 F.3rd at 1467, 45 U.S.P.Q. 2nd at 1165.

The reissue claim is narrower in an aspect germane to the prior art rejection in that applicants have used a narrower definition of the silicon oxide precursor compounds in claims 28, 29, 31, 32, 58, 59, 65 and 66, the definition recited in the patent claims. They are broader in an aspect unrelated to the rejection in the parent application in that they now cover metal oxide precursors rather than the tin oxide precursors of the parent

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FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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[12] Applicants emphasize that the Examiner did not reject any of the claims in the parent application under 35 U.S.C. §102 or 103.

claims as well as additional accelerants.

Applicants submit that Clement gives the proper analysis, in that broadening the tin oxide precursors to metal oxides and broadening the accelerants does not amount to recapture since these claims are broader in an aspect unrelated to the rejection and narrower in aspect germane to the prior art rejection of the silicon oxide precursor.

MPEP §1412.02 also does not apply to reissue claims 28, 29, 31, 32, 58, 59, 65 and 66 since neither the accelerant nor tin oxide precursors which these reissue claims now broaden were originally presented or argued in the original application to make the claims allowable over a rejection or objection. MPEP §1412.02 also does not apply to the foregoing reissue claims since these claims do not omit a limitation to the accelerants or tin oxide precursors, but rather broaden the definitions of the invention to describe the composition as containing additional accelerants and a metal oxide precursor which includes the tin oxide precursors of the parent application.

The Examiner's reliance in the October 26, 2000 Office Action of the position he previously asserted "the prior art of record fails to teach or suggest a gaseous composition comprising the recited tin oxide precursor, silicon oxide precursor and accelerant selected from borates, phosphites and water" (September 23, 1994 parent application Office Action, page 3, first paragraph) has to be viewed in context of the 35 U.S.C. § 112 rejection referred to, applicants' subsequent response, and the Examiner's acceptance of a broadened definition of the accelerants by issuing, without comment or question, a Notice of Allowance regarding claims with the broadened definition of the accelerants.

The Examiner did not issue the Notice of Allowance based on his earlier statement; the record clearly shows that this statement did not form the basis for the

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

allowance, but rather an invitation to amend one, but not necessarily all of the three variables of silicon oxide precursor, tin oxide precursor or accelerant. As the record shows, applicants only amended two of those variables, (silicon oxide precursors were narrowed and the accelerant was broadened), and the Examiner then allowed the application without further comment as to what he deemed as the feature or features that placed the application in condition for allowance.

The record therefore doesn't support the Examiner's argument that he made a statement as to elements in the claim that made them allowable, which applicants did not respond to. The Examiner simply did not allow the application after he made that statement. He invited an amendment, which the applicants submitted, and he did not respond to or make a statement relative to allowability afterwards, (i.e., "Reasons for Allowance") other than by issuing a Notice of Allowance. Lacking any clearly articulated reasons for allowance, applicants could not be expected to respond at that point, and surely should not at this time have those comments of the Examiner stand as a bar to reissue on the grounds of "recapture." The Examiner obviously changed his position on allowability by accepting broadened claims to the accelerant, and his earlier statement, which no longer remained intact, does not give rise to grounds for refusing reissue.

The balance of the claims, claims 33-57 and 60 relating to a film or article of manufacture, derive directly from the article of the great-grandparent application and indirectly from the method of the grandparent applications. Applicants never presented these claims in the parent application so the rejections in the parent do not apply to them. Claim 1 of the great-grandparent application claims the invention as "[a] composition for coating a substrate comprising at least one metal oxide precursor and at least one deposition-rate enhancing material" whereas the grandparent application

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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claimed the invention in claim 1 as "[t]he method of depositing a film onto a substrate which comprises depositing at least a layer in the presence of at least one deposition - rate enhancing substance." Claim 12 of the grandparent application describes the method in terms of depositing a metal oxide.

Although not specifically claiming silicon oxide precursors in claim 1, the great-grandparent application by way of claim 7, dependent on Claim 1 describes the composition as comprising a silicon - oxide precursor and a tin oxide precursor. Thus, the prosecution history of the great-grandparent and grandparent application shows that the broad invention made by the applicants did not specifically require silicon oxide precursors in the composition, method or article of manufacture, but in general, an accelerant and a metal oxide precursor, but which applicant's claimed broadly enough to encompass silicon oxide precursors. Applicants reissue claims 33-57 and 60 follow these claims of the great-grandparent and grandparent applications.[13]

The present application involves reissue claims 33-57 and 60, based on components broader than those granted in the Russo et al. patent, but narrower or at least the same scope as the claims in the great-grandparent and grandparent applications. Assertion of the more limited generic claims, and species claims of the same scope as the claims of the great-grandparent application therefore does not act as an estoppel against the assertion of these claims.[14]

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[13] Applicants' attorneys do not in any way intend to limit the claims of any of the great grandparent, grandparent, PCT, parent or reissue applications by the summaries of claims of those applications as set forth throughout this response.

[14] In re Wallingham, 282 F.2d 353, 127 U.S.P.Q. 211 (CCPA 1960), In re Wadlinger, 496 F.2d 1200, 181 U.S.P.Q. 826, 830 (CCPA 1974), In re Richman, 409 F.2d 269, 161 U.S.P.Q. 359 (CCPA 1969), In re Clement, 131 F.3d 1464, 45 U.S.P.Q.2d 1161 (Fed. Cir. 1997), Ex parte Lombard, 47 U.S.P.Q. 523 (Bd. of App. 1940). .

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FINNEGAN, HENDERSON, FARABOW, GARRETT, & DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

An analysis of the Clement criteria and MPEP § 1412.02 show that neither apply to these reissue claims, since both address outstanding rejections in an application, and the applicants' response to the rejection. Applicants never responded to the prior art rejection in the great-grandparent and grandparent cases, and those rejections became a nullity when applicants filed their CIP application.[15]

Even though the claims in the great-grandparent and grandparent applications became abandoned, and applicants filed a continuation in part, PCT application, this does not amount to a cancellation of claims in the face of an outstanding rejection.

Filing the PCT application could not amount to a response to the rejection or restriction. The abandonment of the great-grandparent and grandparent applications after the applicants filed the PCT application made the rejection a nullity. Filing the PCT application did not constitute a response to the rejection in the applications as revealed by the prosecution history. The Examiner issued specific notices of abandonment in both the great-grandparent and grandparent applications in May of 1993, five months after applicants filed the PCT application on December 21, 1992. The Patent Office had therefore closed the prosecution on both the great-grandparent and grandparent applications, and with it, the various issues raised by the Examiner. The prosecution in both did not carry over to the PCT application which conformed to the laws and rules and regulations of the Patent Cooperation Treaty that does not allow for the

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[15] In Clement, the Court specifically stated that they derived their three recapture criteria from Mentor Corp. v. Coloplast, Inc., 998 F.2d 992, 27 U.S.P.Q. 2nd 1521 (Fed. Cir. 1993) and Ball Corp. v. United States, 729 F.2d 1429, 221 U.S.P.Q. 289 (Fed. Cir.) noting that in those cases "the relevance of the prior art rejection to the aspects narrowed in the reissue claim was an important factor in our analysis." Clement 131 F.3d at 1467, 45 U.S.P.Q. 2nd at 1165.

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FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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incorporation of the formal rejections of these applications into the PCT application.

Filing the parent application as the United States national phase of a PCT application did not resurrect any of the rejections in the great-grandparent and grandparent applications. Those rejections died with the notices of abandonment in each, and applicants' continuing prosecution of the invention in the PCT application did not interject the United States rejections into the PCT prosecution, and for that matter, the parent application.

Additionally, the Examiner in the parent application did not consider the filing of that application as a response to any of the rejections in the great-grandparent and grandparent application, but treated the parent application as a new United States Application and did not refuse to acknowledge priority of the great-grandparent or grandparent applications in the United States prosecution. The Examiner did not have the opportunity to, and in fact did not make the rejection final but rather issued a notice of abandonment in both applications on the ground of applicants' failure to respond in writing to the rejections in both.

In any event, the Examiner not making the rejection final, and the applicant's subsequent filing of the CIP application clearly shows that the applicants did not acquiesce to the rejection. Paperless Accounting v. Bay Area Rapid Transit System, 804 F.2d 659, 231 U.S.P.Q. 649 (Fed. Cir. 1987). In Paperless Accounting the Federal Circuit held that the non final rejections in a parent application did not carry over to a continuation-in-part (CIP) and the subsequent filing of the CIP was not an admission of the correctness of the rejection in the parent or acquiescence to the rejection.

Accordingly, any subsequent prosecution of the great-grandparent and grandparent applications in the CIP application started out with a clean slate. The

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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Examiner could not look to the Office Actions in those abandoned earlier cases, and especially the great-grandparent application as binding on the applicants in any way and should not do so in the present application. Applicants' did not cancel any claims in response to a rejection in the great-grandparent or grandparent applications and did not offer any amendments or arguments to overcome rejections in those applications.

Applicants do not stand in a position of attempting to recapture from the great-grandparent, grandparent or parent applications subject matter that they gave up during the prosecution of the claims in those applications. Applicants simply did not present amendments or arguments relative to the scope of those claims during the prosecution of the great-grandparent and grandparent applications in view of the prior art, nor could they, since they abandoned those applications in favor of the CIP application.

Similarly, the provisions of MPEP § 1412.02 do not apply since the subject matter of reissue claims 33-57 and 60 were never argued or presented by amendment in the great-grandparent or grandparent applications to make the claims allowable over a rejection or objection, nor did the Examiner give any indication of allowability of the claims of the great-grandparent or grandparent applications based on limitations that appeared in the claims.

Lastly, applicants never presented these claims in the parent application and any rejections in the parent do not apply to them.

The Recapture Doctrine does not apply to Applicants' Reissue Claims Directed to a Film

Applicants emphasize that claims 33-38, 50-52 and 56-60 all relate to a film produced using applicants' accelerants, which they never claimed in the great grandparent, grandparent or parent applications. Accordingly, any rejections or

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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restrictions requirements in those applications do not apply to these films nor do the recapture criteria of Clements or MPEP Section 1412.02. The present reissue application presents claims of this type for the first time in the prosecution of this aspect of applicants' invention.

The Examiner nonetheless compares the film claims of the present reissue application to the composition claims presented in the parent application and the amendments applicants made to those composition claims. Applicants, however, never presented or canceled any film claims in the parent application, and accordingly, the Examiner cannot properly come to a conclusion that applicants have recaptured subject mater that they gave up in that application.[16]

The Examiner cannot look to the prosecution of composition of matter claims in the parent application, (one statutory class of invention) and conclude that applicants gave up rights to film claims in the reissue application (a different statutory class of invention) by the parent application prosecution. The amendments in the parent application, directed toward composition claims, do not carry over to film claims 33-38, 50-52 and 56-60 since they comprise different statutory classes of inventions. They differ in that infringement of one type of claim doesn't carry any presumption of infringement of the other. Prosecution of the Russo et al. composition claims, therefore, has no bearing on the reissue film claims in the present application.

Applicants also point out that they did not respond in writing to the restriction

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[16] As stated by the court in Ball, "Narrower reissue claims are allowable; broader reissue claims or reissue claims of the same scope as the cancelled claims are not. If reissue is sought where claims have not been previously canceled, analysis becomes more difficult. In that case, relative claim scope is not available to illuminate the alleged error." Ball Corp. v. United States, 729 F.2d at 1434, 221 U.S.P.Q. at 295, and fn. 19. (Emphasis added.)

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FINNEGAN, HENDERSON, FARABOW, GARRETT, & DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
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requirement,[17] or prior art rejection made in the great-grandparent and grandparent applications, or through the parent application since not only did the restrictions and rejections fail to carry over to the parent application for reasons applicants pointed out above, but also the great-grandparent and grandparent applications related to method and article of manufacture claims and the parent application contained composition of matter claims.

None of those applications ever contained claims to the films now claimed, and accordingly, applicants could not have cancelled, amended or argued patentability of films in those applications. As stated in Ball, "where claims have not been previously canceled . . . relative claim scope is not available. . . . " to invoke the recapture rule. The court must look to other factors to determine how the error arose that gave rise to the reissue. Ball Corp. v. United States, 729 F.2d at 1434, 221 U.S.P.Q. at 295, and fn. 19. (Emphasis added.) [18]

Applicants Do Not Rely Only on the Deposition Rate to Distinguish the Invention

The Examiner focuses on the deposition rate of 350 Å /sec. as distinguishing over the prior art, claiming the applicants asserted this as a feature they rely on to distinguish the references cited by applicants in the written description. (October 26 Office Action, page 4, first paragraph). Applicants, however do not rely only on the deposition rate to

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[17] Applicants, however point out they orally traversed a telephone restriction between method and article claims after making an oral provisional election of method claims on August 25, 1992. The Examiner formalized this in a September 28, 1992 Office Action, which the applicants did not respond to but instead, filed the CIP or parent application directed to a composition.

[18] See supra text accompanying note16.

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

distinguish the invention. The application contains claims with parameters that do this without reciting the deposition rate.

Applicants point out that the composition of matter reissue claims 28, 29, 31, 32 and product by process claims 65 and 66 do in fact contain this limitation, and claims 58 and 59 drawn to a film based on species of compounds falling within those set out in the generic claims 28, 29, 31 and 31 indirectly contain the limitation relative to deposition of films at a rate of 350 Å/sec. or greater. Reissue claims 33-57 and 60, however, relate to a film of a metal oxide and an accelerant, but of sufficient breadth to include not only oxides of silicon but also precursors for the film that deposit at 350 Å/sec. without specifically including these limitations.

As noted before, these claims derive from the great-grandparent and grandparent applications which did not distinguish the prior art based on a deposition rate of 350 Å/sec. but rather the novel accelerants used for increasing the deposition rates of metal oxides or mixtures of metal oxides with silicon oxides.

The written description of both the great-grandparent and grandparent applications, and particularly the examples show the advantage of using the accelerants, and especially the improved deposition rates obtained. Applicants considered their invention as encompassing a broad field, namely the use of the accelerants to improve deposition rates. In the great-grandparent and grandparent applications, applicants did not in any way relinquish their broad invention of employing the accelerants to improve the deposition of metal oxides, especially in combination with silicon oxides. They did not limit themselves to specific deposition rates such as rates greater than about 350 Å/sec., but included all deposition rates promoted by the accelerant.

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

Conclusions

Summary of Arguments

Reissue claims 28, 29, 31 and 32, 58, 59, 65 and 66 contain the same silicon oxide precursor limitations as claims 1-27 of the Russo et al. patent and do not recapture any matter given up in the prosecution of Russo et al. patent by claiming metal oxides in lieu of the tin oxide and a broader class of accelerants. The prosecution of the Russo et al. patent shows that the Examiner considered the silicon oxide precursor as the only element requiring amendment and did not in any way suggest or require amendment of the tin oxide or the accelerant. Applicants responded to this rejection by amending the silicon oxide precursor limitation, and also broadened the definition of the accelerants in the Russo et al. patent, however, the Examiner did not object to this broadening, further indicating that the original rejection focused only on the silicon oxide precursor.

Specifically, claims 28, 29, 31, 32 58, 59, 65 and 66 contain the silicon oxide precursor limitation and the limitation of coating speeds of greater than 350 Å/sec., they track the Russo et al. patent claims in all respects that the Examiner has challenged. Those claims, however, as noted before, broaden the scope of the tin oxide to metal oxides and broaden the scope of the accelerants. These claims nonetheless avoid recapture as stated in Clement, in that they are narrower or of in an aspect germane to a prior art rejection, and broader in an aspect unrelated to the rejection. Similarly, MPEP §1412.02 does not apply since applicants presented the silicon oxide precursor limitation in the Russo et al. patent application to make the claims allowable. MPEP 1412.02 also does not apply to the change of the tin oxide precursor to metal oxide precursors nor the accelerants, since the prosecution history of the parent application clearly shows that the

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

Examiner accepted an amendment of the accelerants to broaden them, clearly indicating the Examiner relegated the tin oxide to the same position as the accelerant, especially where the Examiner only rejected the silicon oxide precursor under 35 U.S.C. §112 and not the tin oxide precursor or the accelerant.

Applicants have specifically included the deposition rate of 350 Å/sec. in claims 28, 29, 31, 32, 58, 59 65 and 66. The balance of the reissue claims 33-57 and 60, without specifically mentioning the deposition rate, or the silicon oxide precursor broadly include both, which the great-grandparent and grandparent applications support. Applicants never amended or argued claim scope of the claims in the great-grandparent and grandparent applications, although these claims are broader than, or in some instances of the same scope as claims 33-57 and 60.

Neither the Clement rationale nor MPEP § 1412.02 apply to claims 33-57 and 60 since applicants did not amend the supporting claims in the great-grandparent and grandparent applications, did not present arguments relative to the scope of these claims in those applications that responded to any prior art rejection, nor did the Examiner ever indicate they were allowable because of certain claim elements. Also, any rejections in the great-grandparent and grandparent applications became moot when applicants filed their CIP application. Lastly, applicants never presented these claims in the parent application, so the rejections in that application don't apply to them.

Similarly, applicants never presented claims 33-38, 50-52 or 56-60 which claim a film in either the great grandparent, grandparent or parent applications and the recapture doctrine cannot apply to them.

Even though rejected on prior art grounds and restricted, the applicants did not amend the great-grandparent, grandparent or parent applications, present arguments as

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

to patentability or cancel claims regarding the film in order to overcome the restriction or prior art. These applications never contained any film claims, and accordingly applicants could not have done this. As stated by the court in Ball, "where claims have not been previously canceled . . . relative claim scope is not available. . . ." to invoke the recapture rule.[19] The court must look to other factors to determine how the error arose that gave rise to the reissue. Accordingly, the present application does not recapture film claims.

Applicants therefore request the Examiner to withdraw the rejection and allow all of the reissue claims so that the Patent and Trademark Office can declare an interference with at least Athey et al., United States Patent No. 5,536,718, and/or other related patents.

If filing this response requires an extension of time pursuant to 37 C.F.R. § 1.136 and payment of an extension fee or other fee which this response fails to account for, applicants' attorneys request such an extension and payment of any fees due from their Deposit Account No. 06-0916.

Respectfully submitted,

Finnegan, Henderson, Farabow,
Garrett & Dunner, L.L.P.

By: Robert J. Eichelburg

Robert J. Eichelburg
Reg. No. 23,057

Dated: January 26, 2001

LAW OFFICES
FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

[19] Id.